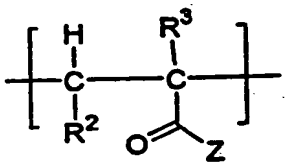
6. (Amended) The polymer according to claim 1, wherein R is hydrogen, R^1 is methyl.

7. (Amended) The polymer according to claim 1, wherein the polymer is a homopolymer.

A1 Cont

8. (Amended) A polymer according to claim 1 comprising the unit (II)



(II)

wherein R^2 is selected from hydrogen, C_1-C_{18} alkyl, C_1-C_{18} alkenyl, C_1-C_{18} aralkyl, C_1-C_{18} alkaryl, carboxylic acid and carboxy-C_1-$_{16}$ alkyl; R^3 is selected from the group consisting of hydrogen, methyl, ethyl, propyl, butyl, pentyl and isomers thereof, Z is a pendent group selected from the group consisting of NR^4R^5, SR^6 and OR^7, wherein R^4 is an acyl group, preferably an aminoacyl group or oligopeptidyl group; R^5 is selected from hydrogen, C_1-C_{18} alkyl, C_1-C_{18} alkenyl, C_1-C_{18} aralkyl, C_1-C_{18} alkaryl; R^6 and R^7 are selected from the group consisting of hydrogen, C_1C_{12} alkyl, C_1-C_{12} alkenyl, C_1-C_{12} aralkyl, C_1-C_{12} alkaryl, C_1-C_{12} alkoxy and C_1-C_{12} hydroxyalkyl, and may contain one or more cleavable bonds and may be covalently linked to a bioactive agent.

10. (Amended) A polymer according to claim 8 comprising the unit (II) wherein R^2 is hydrogen, C_1-C_{18} alkyl, C_1-C_{18} alkenyl, C_1-C_{18} aralkyl, C_1-C_{18} alkaryl, R^3 is selected from the group consisting of hydrogen, methyl, ethyl, propyl, butyl, pentyl and isomers thereof, Z is a pendent group NR^4R^5, wherein R^4 is an acyl group, preferably an aminoacyl group or oligopeptidyl group; R^5 is selected from hydrogen, C_1-C_8 alkyl, C_1-C_{12} alkenyl, C_1-C_{12} aralkyl, C_1-C_{12} alkaryl; and wherein the polymer has a molecular weight (Mw) of less than 50,000.

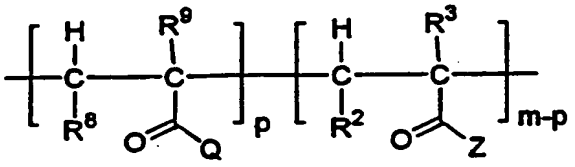
A2

A2 Cont

11. (Amended) A polymer according to claim 8 wherein (II) is linked to a bioactive agent and the bioactive agent is a drug.

13. (Amended) A polymer according to claim 8, wherein the polymer has the structure (III)

A3



(III)

wherein R^8 and R^9 are selected from the same groups as R^2 and R^3 respectively, Q is a solubilising group selected from the group consisting of C_1C_{12} alkyl, C_1-C_{12} alkenyl, C_1-C_{12} aralkyl, C_1-C_{12} alkaryl, C_1-C_{12} alkoxy, C_1-C_{12} hydroxyalkyl, C_1-C_{12} alkylamido, C_1-C_{12} alkylimido, C_1-C_{12} alkanoyl, and wherein m and p are integers of less than 500.

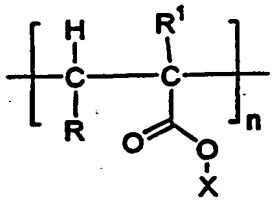
A4

17. (Amended) The process according to claim 15, wherein the process additionally comprises a solvent, an Atom Transfer Radical Polymerization initiator selected from alkylhalides, preferably alkylbromides, and a mediator which comprises a Cu(I)Br moiety complexed by a chelating ligand, preferably the mediator being selected from $Cu(I)Br(Bipy)_2$, Cu(I)Br(Bipy)N, Cu(I)Br(N, N', N", N"-pentamethyldiethylenetriamine), Cu(I)Br[$methyl_6$ tris(2-aminoethyl)amine] and Cu(I)Br(pentamethyldiethylene).

A5

24. (Amended) A process according to claim 22, wherein E is selected from the group consisting of N-succinimidyl, pentachlorophenyl, pentafluorophenyl, para-nitrophenyl, dinitrophenyl, N-phthalimido, N-norbornyl, cyanomethyl, pyridyl, trichlorotriazine, 5-chloroquinilino, and imidazole, preferably N-succinimidyl or imidazole, most preferably N-succinimidyl.

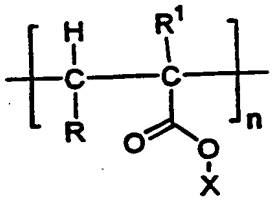
25. (Amended) A process according to claim 23, wherein the polymer of formula (VI) is a polymer of formula (I)



(I)

A5 Cont.

26. (Amended) A process according to claim 22, wherein the polymer of the formula (I)



(I)

is reacted in a second step with a reagent HR^x as defined in claim 22, whereby at least some of the groups -OX are replaced by $-R^x$ in the product derivatised polymer.

27. (Amended) A process according to claim 26, wherein HR^x is H_2 NR^{14} preferably NR^{14} being an N-aminoacyl or N-oligopeptidyl group.

28. (Amended) A process according to claim 27, wherein R^x comprises one or more aminoacyl groups, preferably 2 to 6, most preferably 4 aminoacyl groups.

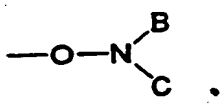
29. (Amended) A process according to claim 28 wherein R^x comprises a bioactive agent, preferably an anti-cancer drug.

A5 Cont'

30. (Amended) A process according to claim 29, comprising the additional step of reacting the unreacted groups, OE or OX groups, with a solubilising group selected from the group consisting of C_1-C_{12} alkyl, C_1-C_{12} alkenyl, C_1-C_{12} aralkyl, C_1-C_{12} alkaryl, C_1-C_{12} alkoxy, C_1-C_{12} hydroxyalkyl, C_1-C_{12} alkylamido, C_1-C_{12} alkylimido, C_1-C_{12} alkanoyl.

A6

34. (Amended) A process according to claim 31, wherein step B is a Controlled Radical Polymerisation process, preferably one in which polymer of the structure (XV) has one terminal group A and one terminal group



35. (Amended) The polymer as defined in claim 1, for use in a method of manufacture of a medicament, preferably for the treatment of cancer.

36. (Amended) A composition comprising a polymer as defined in claim 1 and a pharmaceutically acceptable excipient.

37. (Amended) Use of a polymer as defined in claim 1 as an excipient.